

CLAIMS

We claim:

1. An apparatus for separating an array slide from a gasket slide, comprising:
 - (a) a first substrate for contacting and attaching to the array slide;
 - (b) a second substrate for contacting and attaching to the gasket slide; and
 - (c) separation means for separating the first substrate from said second substrate.
2. An apparatus as recited in claim 1, wherein the first substrate attaches to the array slide by way of a vacuum.
3. An apparatus as recited in claim 1, wherein the first substrate attaches to the array slide by way of adhesion.
4. An apparatus as recited in claim 1, wherein the first substrate attaches to the array slide by way of bonding to it.
5. An apparatus as recited in claim 1, wherein the second substrate attaches to the gasket slide by way of a vacuum.
6. An apparatus as recited in claim 1, wherein the second substrate attaches to the gasket slide by way of adhesion.
7. An apparatus as recited in claim 1, wherein the second substrate attaches to the gasket slide by way of bonding to it.

8. An apparatus as recited in claim 1, wherein the first substrate is selected from the group consisting of glass, plastic, polymers, thermoplastic materials, metal, wood and composite materials.
9. An apparatus as recited in claim 1, wherein the second substrate is selected from the group consisting of glass, plastic, polymers, thermoplastic materials, metal, wood and composite materials.
10. An apparatus as recited in claim 1, wherein the means for separating the first substrate from the second substrate is selected from the group consisting of a vise, a clamp, a fastener, a machine, a hand, a wedge, and a lever.
11. An apparatus for separating an array slide from a gasket slide, comprising:
 - (a) a first substrate for contacting the array slide;
 - (b) a second substrate opposite the first substrate for contacting the gasket slide;
 - (c) a first vacuum source associated with the first substrate for providing a first vacuum to the first substrate for attaching the first substrate to the array slide;
and
 - (d) a second vacuum source associated with the second substrate for providing a second vacuum to the second substrate for attaching the gasket slide to the second substrate, wherein the first substrate can be separate from the second substrate and the array slide is also separated from the gasket slide.

12. An apparatus for separating an array slide from a gasket slide, comprising:
 - (a) a first substrate for contacting the array slide;
 - (b) a second substrate opposite the first substrate for contacting the gasket slide;
 - (c) a vacuum source associated with the first substrate and second substrate for providing a first vacuum to the first substrate for attaching the first substrate to the array slide and a second vacuum to the second substrate for attaching the gasket slide to the second substrate, wherein the first substrate can be separated from the second substrate and wherein the array slide is also separated from the gasket slide.
13. An apparatus for separating an array slide from a gasket slide, comprising:
 - (a) a first substrate for contacting the array slide, the first substrate comprising a first means for attaching to the array slide;
 - (b) a second substrate for contacting and attaching to the gasket slide the second substrate comprising a second means for attaching the second substrate to the gasket slide; and
 - (c) means for separating said first substrate from said second substrate and concomitantly separating the array slide from the gasket slide.
14. An array hybridization apparatus as recited in claim 1, wherein the gasket comprises a deformable material.
15. An array hybridization apparatus as recited in claim 1, wherein the spacer comprises a substantially non-deformable material.
16. An array hybridization apparatus as recited in claim 1, wherein the gasket is attached to the gasket slide.
17. An array hybridization apparatus as recited in claim 1, wherein the gasket is attached to the array slide.

18. An array hybridization apparatus as recited in claim 1, wherein the gasket comprises a portion of the gasket slide.
19. An array hybridization apparatus as recited in claim 1, wherein the gasket is attached to both the gasket slide and the array slide.
20. An array hybridization apparatus as recited in claim 1, wherein the spacer is attached to the gasket slide.
21. An array hybridization apparatus as recited in claim 1, wherein the spacer is attached to the array slide.
22. An array hybridization apparatus as recited in claim 1, wherein the spacer is attached to both the gasket slide and the array slide.
23. An array hybridization apparatus as recited in claim 1, wherein the spacer comprises a material selected from the group consisting of polyurethanes, polypropylene, plastics, acrylics, metals and non-deformable or less deformable polymers.
24. An array hybridization apparatus as recited in claim 1, wherein the spacer is between 25 to 500 microns in height.
25. An array hybridization apparatus as recited in claim 11, wherein the array hybridization chamber is between 25 to 25,000 microns in height.
26. A method of disassembling an array hybridization apparatus having a gasket slide contacting an array slide, comprising:
 - a. contacting a first substrate with a vacuum to the array slide;
 - b. contacting a second substrate with a vacuum to a gasket slide; and
 - c. separating the first substrate from the second substrate while also separating the gasket slide from the array slide.

27. A method of disassembling an array hybridization apparatus having a gasket slide attached to an array slide, comprising:
- a. contacting a second substrate to a gasket slide attached to an array slide;
 - b. contacting a first substrate to a gasket slide attached to an array slide; and
 - c. separating the first substrate from the second substrate while also separating the gasket slide from the array slide.